

February 27, 1998

The Honorable Bill Frist
Senate Commerce Subcommittee on Science
Technology and Space
428 Hart Senate Office Building
Washington, D.C. 20510

RE: S. 1473

Dear Senator Frist:

Space Imaging L.P. respectfully submits the following comments on the proposed draft Commercial Space Act of 1997, S.1473. Our comments are directed specifically to Title II, Remote Sensing, and the importance of its inclusion in S.1473 to the survival of the U.S. commercial remote sensing industry.

A. Space Imaging. Space Imaging L.P. is a limited partnership. Its founders and two largest partners are Lockheed Martin Corporation and Raytheon E-Systems, Inc. Space Imaging is based in Thornton, Colorado and currently employs approximately 225 people. Space Imaging is, today, the world's leading commercial supplier of satellite-sourced earth imagery. Space Imaging operates the US Landsat system and is the international marketer of India's IRS system. Space Imaging also distributes products from Japan's JERS system and Europe's ERS systems. The future of Space Imaging depends, however, on the survival of U.S. remote sensing as a commercial industry.

A. U.S. Commercial Remote Sensing. Until the beginning of this decade, remote sensing technology was used by the United States almost exclusively for defense/intelligence related purposes. Beginning in early 1993, Lockheed Corporation (now Lockheed Martin Corporation) and other defense industry leaders, participated in a cooperative effort with U.S. government officials to develop a new commercial space remote sensing policy. The purpose of the new policy was to permit U.S. entrepreneurs, including defense contractors and others in the remote sensing field, to use their expertise in high-resolution imaging to create new commercial opportunities and compete in the global commercial market with foreign entities already offering improved-resolution products. These efforts culminated on March 10, 1994, in the adoption of the President's new remote sensing policy, PDD-23.

PDD-23 expressly supports the development of a U.S. remote sensing industry that not only can compete in the world market, but that can lead that market. PDD-23 acknowledges that a strong and competitive U.S. remote sensing industry provides numerous benefits including the enhancement of national influence and promotion of regional stability. PDD-23 also takes notice of the importance of State Department and Defense Department input in order to ensure that national security and foreign policy concerns are evaluated. The PDD makes clear, however, that the Commerce Department is to have jurisdiction over the remote sensing industry, and that the roles of State and Defense are to be that of support. In effect, State and Defense are to provide input, but it is Commerce that is to make decisions.

Relying on PDD-23, its commitment to the commercial development of high-resolution satellite imagery and its assurance that remote sensing was to be treated like every other commercial industry (i.e. regulated primarily by the Department of Commerce), Space Imaging created a new business to commercialize high quality 1-meter satellite imagery. More than \$1 billion has been invested industry wide in the effort to commercialize the U.S. remote sensing industry since PDD-23 was issued. Space Imaging alone was capitalized with over \$500 million dollars.

The U.S. House of Representatives recognized that in order for PDD-23 to become a reality and for U.S. remote sensing to survive as a commercial industry, clear direction was required from Congress regarding Commerce Department jurisdiction and the imposition of definite standards on State and Defense review of license applications and foreign agreements. In the fall 1997 term, the House of Representatives, notwithstanding State Department objection, stated their commitment to the survival of U.S. remote sensing as a commercial industry by passing H.R. 1702 with a remote sensing title that imposed the standards required to bring certainty to the regulation of the remote sensing industry. Space Imaging applauds the efforts of the House.

S. 1473, the companion bill to H.R. 1702, as introduced, omits any reference to remote sensing. The amended version of S. 1473 that is now before this Committee re-incorporates the remote sensing title of H.R. 1702 with one key difference. That difference is that all of the standards imposed on State and Defense review of applications and agreements are omitted. Specifically the requirement that comments be submitted to the Secretary of Commerce within a specific time period and in appropriate detail is no longer present. In the absence of such standards, the industry is subjected to an unpredictable and uncertain regulatory scheme that fosters the opportunities for unreasonable delays and arbitrary and capricious decisions. The U.S. remote sensing industry cannot compete and cannot survive in such a regulatory climate; and so it is with our survival in mind that we seek to have the standards of H.R. 1702 included in S. 1473.

C. The Market. There has been much discussion about the global market for high-resolution imagery. There are those who say the only market is the military/intelligence community. Space Imaging is banking that is not the case. In fact, Space Imaging's business plan contemplates that the global market will develop along the lines of the North American market in that the bulk of sales will be to the land management (including agricultural), resource management, environmental, infrastructure, educational and publication segments. Space Imaging estimates that once the global high-resolution imagery market is developed, only 20% of its sales will be to the military/intelligence segment. High-resolution imagery is, however, a new commercial product and it is impossible to anticipate the market response with 100% accuracy. The automobile is a good analogy. Before the automobile was built, there was no demand for it. Once it came into production, there was demand for little else.

Space Imaging plans to meet the anticipated global demand for high-resolution products through the use of regional affiliates. The regional affiliate relationship is similar to a franchising relationship in that Space Imaging is the wholesaler of the satellite images, and the regional affiliate is the retailer of the value-added product. These regional affiliate relationships are expected to generate more than 50% of the annual revenue of Space Imaging (or more than \$200 million per year) through up front affiliation fees and periodic access fees. The regional affiliate relationship is set forth in a Regional Affiliate Agreement and a Regional Operations Center Purchase Agreement. These two agreements, or variations thereof, are the most common agreements submitted for U.S. government review. As with any commercial transaction, it is imperative that the parties have a binding agreement on a date certain that can be identified at the time of signing. In the absence of

definitive time limitations on government review, Space Imaging (or another U.S. company) is put in the position of asking a potential affiliate to put up millions of dollars for an agreement without any assurance when or if the U.S. government will approve the affiliate agreement. Moreover, if it is rejected none of the commercial parties involved will have any insight as to why. The uncertainty of this situation makes the creation of a business plan with a hard date for the start of commercial operations almost impossible. It is likewise impossible for either the potential affiliate or the company to project revenues. This combination makes obtaining financing for both the potential affiliate and the U.S. company extremely difficult and in some cases impossible. As foreign remote sensing enterprises, not burdened by such regulatory uncertainty, continue to enter the market, more and more potential affiliates/customers of U.S. companies will be lost, resulting in a direct and significant loss of U.S. jobs in this industry. This loss of business will not necessarily occur as a result of actual delays in the review process, but will occur because of the mere potential for unlimited delay or unsubstantiated rejection. The market will ask, why do business with a U.S. company when you don't know when or if you will ever have an agreement, when you can do a similar deal with the Israeli's, French or Russians and have a deal today?

If Space Imaging (or any other U.S. company) cannot be certain that its agreements will be reviewed in a timely manner, then it cannot generate revenue and it cannot compete in the world market, particularly against foreign based competitors who are not subject to such restrictions.

D. Foreign Competition. Foreign competition in the development of commercial remote sensing systems and the marketing of high resolution imagery is significant and is continuing to grow at a rapid pace. France has a 1-meter commercial system in design and is currently offering a "turn-key" 3.5-meter system for sale to anyone who has the purchase price. Russia has several 1 and 2 meter projects underway, including their recent successful launch of a the commercial 2-meter SPIN-2 satellite. Israel is planning its launch of a 1-meter system almost identical to Space Imaging's in 1999. Their marketing program for this system, which is well under way, includes the use of contracts with affiliates and distributors and is otherwise indistinguishable from Space Imaging's business plan. Germany, Japan, China, India and others all have commercial projects in the design or construction phase. The United States currently has a competitive edge because of the ability to produce better technology, faster and cheaper than many other countries. This edge will be lost, however, if regulatory uncertainty prevents companies like Space Imaging from taking our technology to the market place in a timely and efficient manner.

A. The Bottom Line. The technology of high-resolution satellite imagery and its commercial applications are here and they are here to stay. If the U.S. does not actively participate in this market, then the market will be dominated by foreign enterprises, none of whom are subject to U.S. regulation. If U.S. companies are encouraged to lead this market, they will; and the result will be greater input by the United States into how the global commercial remote sensing industry is regulated. It is in the best economic interest and national security interest of the United States that U.S. companies become the leaders of the remote sensing industry.

In order for the U.S. remote sensing industry to achieve commercial success, there must be certainty, predictability and transparency in the laws that govern the industry. There must be definite standards, including time limitations and an obligation to comment with some specificity, imposed on those who review the actions or proposed actions of remote sensing companies. In short, the industry must be encouraged and supported like any other U.S. commercial industry, and must have the ability to protect itself from the potential of arbitrary and capricious decisions. If Congress is unwilling to impose the standards necessary to bring transparency and predictability to the regulatory scheme, then it is sending the clear message that remote sensing is not to be a commercial industry, but rather is to remain technology for government use only. Space Imaging urges this Committee to support the inclusion of

Title II of H.R. 1702, in its entirety, in S. 1473.

Thank you for the opportunity to submit these comments. We would be glad to provide any additional information you may need or answer any questions at your convenience.

Sincerely,

John R. Copple
Chief Executive Officer